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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/637,543	08/11/2000	Harald Thomas	43605-00019	7665

23932 7590 01/26/2005  
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EXAMINER

NGUYEN, TU X

ART UNIT PAPER NUMBER

2684

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/637,543

Applicant(s)

THOMAS ET AL.

Examiner

Tu X Nguyen

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-23 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 24-33 is/are rejected.
- 7) ☒ Claim(s) 5-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Response to Amendment***

1. In view of the Applicant's statement concerning common ownership filed on 10/27/04, PROSECUTION IS HEREBY REOPENED.

2. Applicant's arguments with respect to claims 1, 24-26 and 32, have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 26-28 and 32-33, are rejected under 35 U.S.C. 103(a) as being unpatentable over Krasner (PCT 99/36795) and further in view of Loke (US Patent 6,311,048).

Regarding claims 1 and 26, Krasner discloses a multiple communication device (150) of the type with parallel operation, comprising:

a first subunit (130) at least receiving input signals at a predetermined input level (see page 10, 1<sup>st</sup> and 2<sup>nd</sup> paragraph);

a second subunit (109) at least transmitting output signals at a specific time, frequency (see page 6 and 14), and output level such that said output level is very large compared to said input level of said first subunit (see abstract); wherein

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an operation mode of said first subunit is modified when said second subunit is transmitting output signals (see abstract).

Krasner fails to disclose said modification allowing said first subunit to remain fully operational; and wherein signal quality of the input signals to be maintained in the presence of the output signals.

Loke discloses said modification allowing said first subunit (106, fig.1) to remain fully operational (see col.4 lines 5-12); and wherein signal quality of the input signals to be maintained in the presence of the output signals (see see col.4 lines 5-12).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Krasner with the above teaching of Loke in order to provide controlling the linearity of an RF receiver by selectively increasing the effective IP3 value on an LNA/mixer channel only when needed, and thus improve the talke time during duplex communications (as suggested by Loke , see col.4 lines 27-40).

Regarding claims 2 and 27, the modified Krasner discloses said first subunit comprises an operation mode modification unit to receive at least one signal (see Krasner, 110, fig.2) specifying at least one of time, frequency and output level in said second subunit for operation mode modification in said first subunit.

Regarding claims 3 and 28, the modified Krasner discloses said operation mode modification unit (see Krasner, 104) is adapted to modify and input characteristic of said first subunit (see Krasner, 116,117, 122 and 130).

Regarding claims 32-33, the modified Krasner discloses everything as claim 1 above. More specifically, the modified Krasner discloses a computer program product

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directly loadable into an internal memory of a digital computer (see Parmentier, col.7 lines 42 through col.8 line 39).

5. Claims 4, 24-25 and 29-31, are rejected under 35 U.S.C. 103(a) as being unpatentable over Krasner, in view of Loke and further in view of Hughes (US Patent 6,134,427).

Regarding claims 4 and 29, the modified Krasner fails to disclose said input characteristic of said first subunit is modified through a low noise amplifier having at least one of at least two operation modes, a tunable filter and/or a switchable receiver and/or an antenna with tunable gain.

Hughes discloses a low noise amplifier (56) having at least two operation modes. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of the modified Krasner with the above teaching of Hughes in order to reduce circuit components providing an amplifier which has selected alternative modes to process received signals in the corresponding communication band.

Regarding claim 24, the modified Krasner discloses everything as above claims 1-4. More specifically, the modified Krasner discloses antenna characteristics are adapted to enhance blocking performance of said first subunit for shifting said frequency with maximum gain in case of presence of a blocking signal so as to provide additional attenuation for out of band signals (see Krasner, page 10).

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Regarding claim 25, the modified Krasner discloses everything as above claim 1. More specifically, the modified Krasner discloses a dual band mobile communication standard GSM 900/GSM 1900 (see Hughes col.2 lines 57-64).

Regarding claim 30, the modified Krasner discloses operation mode modification is executed at least one signal to activate a normal operation mode in the second subunit (see Krasner, 104, 105, fig.2).

Regarding claim 31, the modified Krasner discloses control and/or input signals defining a transmitter signal in the second subunit are employed to initiate the operation mode modification in the first subunit (see Krasner, 117, 116, 122).

### ***Allowable Subject Matter***

6. Claims 11-23 are allowable.

7. Claims 5-10, objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 5, 11, 16 and 18, none of prior art records teaching low noise amplifier has at least two operation modes and comprises a switchable bias network adapted to define at least two biasing conditions of said low noise amplifier, as cited in the claims.

Regarding claim 17, none of prior art records teaching "a filter connected between said antenna and said second low noise amplifier and adapted to reject blocking signals; and wherein in case a performance of said low noise amplifier is

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limited due to an interfering signal said second low noise amplifier with said filter connected thereto is activated" as cited in the claim.

### Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond S Dean whose telephone number is 703-305-8998. The examiner, Tu Nguyen 703-305-3427, can normally be reached on 8:00-4:30AM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MAUNG NAY A, can be reached at (703) 308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

TN

January 12, 2005

1. 6. 1/20/05  
EDAN ORGAD  
PATENT EXAMINER/TELECOMM.